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AWFUL EXPERIENCE IN THE LIFE OF FILUS KROAST.

I AM no relation—I confess it—of Filus Kroast. The extraordinary event in her life it has fallen to my lot to record, shall not betray me into drawing the connection one hairbreadth closer than is warranted by strictest truth. Having said this, I may mention, with some little pride, that her excellent mother presided over the dame's-school at the very same village in which my aunt's second husband passed his childhood!

It will have been already understood that Filus, in spite of the masculine termination of the name, was a lady. Concerning the spelling of *both* names, Filus maintained through life, with her many friends, an animated yet kindly controversy. Those whose education had received the highest polish, openly affirmed that no other combination of characters than such as would produce the words PHILIS CROWHURST would fully meet the exigencies of the case. But Filus had her own convictions. Being the weaker party, I range myself under her banner—'Filus and Freedom (of spelling)!' Moreover, we have the law of England itself on our side, since the very last of the wills and testaments of Filus Kroast—she executed fifty-nine—lies proven, in that very name, at Doctors' Commons, and visible, if not remarkably legible, for one shilling. So, there!

I own to some rashness in the expression 'weaker party.' From the very first, Filus possessed a strong and trusty ally in Martha Drabbit, kitchen-maid in the establishment in which Filus was upper house-maid. Martha entertained an admiration, trenching upon idolatry, for her accomplished friend. In her opinion, Filus *could* not err. As Blondin is said to experience a positive difficulty in losing his balance on the rope which constitutes his natural home, so it would cost Filus an express mental effort to effect any species of mistake.

Poor Martha herself had, in fact, no name. She had been found in a worsted stocking, attached to the knocker of the mansion of the most noble the Marquis of Carraway, in Portman Square. That noble peer was on the continent, and has probably never been apprised, until the present moment, of the implied compliment to his philanthropy.

Miss Drabbit's precocious attempt to connect herself with the aristocracy was not entirely successful:

the butler, a stern, disappointed man, handed her to the policeman; the policeman, to the parish authorities; the latter—in due season—to Mrs Loveleigh Smyles, of Sweet Street, Pleasant Square, S.W., in the capacity I have already mentioned.

Christened 'Martha' at the instigation of the beadle, a gentleman of limited imagination, 'Drabbit' had been afterwards superadded, for two reasons—the first general, because it was ascertained, on inquiry, that the metropolis already contained more than one Martha; the second special, inasmuch as 'Drabbit it'—or, more correctly, 'Ad rabbit it'—was Martha's favourite interjection.

My acquaintance with Miss Drabbit was inaugurated by this very expression.

'Ad rabbit that ere boy!' said a voice, both sharp and sweet, as I was pacing abstractedly along. Looking round, I became aware that Martha Drabbit was washing the door-steps of one of the houses—that that young lady had turned hastily on her knees to gaze angrily after a retreating pot-boy—that she wore blue garters over black stockings, and secured those articles below the knee.

Perish my pen, if in any other age I would have written this! But crinoline has familiarised us with such hitherto undreamed-of wonders, that I record it firmly, openly, without even the semblance of a blush—that Martha wore blue garters, and that one of these, though but for an almost inappreciable moment, I saw.

It was characteristic of Martha's stern fidelity that she should have been so indignant with the boy, inasmuch as her mistress, Mrs Loveleigh Smyles, was—with everybody else of any consequence—out of town. The grass was growing with unusual luxuriance in Regent Street, and Vice-admiral Sir Kusac Dosey, though upon the very committee of his club, had been ignominiously expelled from that building by the under-butler—its sole inhabitant.

But Mrs Loveleigh Smyles was a very remarkable lady, and, absent or present, the terror of her was unceasingly predominant in the household. She was a beautiful little woman, with large dark-gray eyes, and a perfectly transparent complexion. She had, further, a soft and silken manner, and purred sweetly when she talked. You longed to pat her. It would have been safer to touch a tiger! Tornadoes of passion lay slumbering beneath that gentle exterior. Once aroused, she gave herself up, as it were, body

and soul, to the demon of rage, hardly sensible, for the moment, of the excesses to which it hurried her. By nature, and through neglect of training, she was the incarnation of selfishness. The slightest personal neglect sufficed to awaken the most appalling gusts of passion, and, though intercourse with society had necessarily taught her some degree of self-government, among her dependents, these paroxysms had full sway.

Perfectly conscious of her failing, she had, early in life, fallen into the fatal error of regarding it as planted ineradicably in her disposition, and believed that the painful force she had sometimes to impose upon her rising passions in general society, must be compensated for by indulging them at other seasons, among those accustomed to submit. Hence, resorting to palliatives, she adopted a line of conduct, both before and after these ebullitions, which she flattered herself might meet the emergency, and, on feeling the approach of the fiend, would become so fearfully sweet and gentle, as to awaken the most lively apprehensions. A little present which, not infrequently, accompanied this change, became, under the circumstances, as ominous an offering as the bowstring politely handed to an offending pecha.

When engaging her domestics, Mrs Loveleigh Smyles sweetly and candidly told them what they had to expect.

'I am a passionate, wicked little wretch,' she would murmur, in her low, pleasant voice. 'Be very sorry for me. It is the bitter in my cup of life. But I must be resigned, so must you' (with one of her bewitching smiles), 'and, as I do so hate changing my servants, and your terms are so-and-so, I will double them—do you hear?—on condition that you bear with your unfortunate mistress in her occasional trials, and say nothing of them beyond these sad doors.'

As no new applicant was ever known to repose the slightest faith in the charming little lady's account of herself, the bargain, it may be supposed, was quickly concluded, and Susan (or Thomas) entered upon her duties with a quiet snigger, convinced that she had got into a good thing.

A week perhaps elapsed, when—'Thu-then,' a sweet voice would lip, from behind the bed-curtains, as the maid entered her lady's room, 'I have such a headache! There must be a flower in the room. You did not forget, did you, my good girl, to place those roses on the window-sill? eh, Susan dear!'

Conscience-stricken at having neglected the behests of so gentle and affectionate a mistress, Susan seized the offending flowers in one hand, and softly opening the curtains with the other, so as to make her apologies with the better grace, received a stinging slap on the eye and cheek, delivered with the whole force of the little ringed hand!

'You insolent, obstinate minx! You great gaping idiot! take that, and that, and this!' and the infuriated lady, catching up every movable her arm could reach—cup, candlestick, books, &c.—hurled them wildly at Susan's head.

'Do you defy me, you wretch?' she added, suddenly sinking her voice to a whisper more terrible still, and, with every feature of her altered face working with insensate rage, she glided from her bed, and caught up the poker.

Susan cast one terrified glance at the little fiend-like figure, and incontinently fled, banging the door, to cover her retreat. Fearful was the hubbub that ensued. Screaming, stamping, tearing and smashing everything that crossed her way, the unhappy lady might be heard exhausting the remnants of her passion upon the senseless objects around, till the room was strewn with ruin.

Below, the servants gathered in a bewildered group, uncertain how to act. The butler himself was pale and mute, and it was not a little that disturbed Mr Binns. One voice alone, with reassuring calmness,

rose above the frightened murmurs—it was that of Filus Kroast.

'Set ye down, and don't do nothin', was Filus's counsel; and taking out her housewife, she seated herself, with perfect unconcern, and fell to work upon the toe of an aged sock.

Suddenly, the uproar in my lady's chamber ceased. There was a loud thump, as if she had fallen heavily on the floor. The group started. Could the unfortunate lady have laid violent hands upon herself?

Still Filus sat and wrought. After another minute:

'Now, I think,' said Filus, 'she will be done;' and, calmly rising, as though to examine the progress of a bit of toast, the intrepid girl slipped off her shoes, walked steadily up stairs, and applied her ear to the keyhole. A low sound of sobbing was alone audible. Filus nodded, over the balusters, her entire satisfaction at the state of things, then quietly opened the door and walked in.

Her mistress was lying stretched on the carpet, her face on the very floor, weeping bitterly, and, in the agony of her remorse, beating her little white feet cruelly against the ground.

Filus cast one glance at her, in which no grain of contempt mingled with its womanly compassion, and then set skilfully to work in restoring order. When this was in some measure effected, and the bits of broken glass and porcelain carefully swept aside, she for the first time drew near her lady, and gently placed a soft cushion under the bruised feet; then, lifting up her head, like that of a sick child, she laid it also on a cool, soft pillow; finally, she stretched a quilted dressing-robe over the recumbent figure, like a pall, gave one sigh, as to fallen greatness, and withdrew.

'Fifty pound a year, with tea and sugar, and my beer, ain't so bad, mind you,' remarked Susan that evening at supper; 'but I do wish there warn't no pokers in her room!'

'Missis won't hardly play that game with me,' said Thomas, with languid assurance. (Thomas had large, brown, melancholy eyes, and was very proud of them.) 'I don't mind a quick word or so, but if she comes the poker-dodge, I shall stop her with my heye.'

Thomas had very soon an opportunity of testing the power of that organ. One morning, the bell of his lady's boudoir rang, a little more sharply than usual. Thomas hurried up. Mrs Smyles was sitting with her face turned to the window, and spoke to him without changing her position. There was, nevertheless, a slight, almost imperceptible heaving of the beautiful shoulders, and a sort of tremor in her cooing tones, that might have alarmed the initiated.

'O Thomas, will you—will you oblige me by telling me, Thomas, at what hour this morning my letters and papers were put into your hands? I am sure you will remember how especially I directed you, my good Thomas, to place them always on the table by—by ten o'clock. Yes, Thomas?'

Thomas recollected, with some compunction, that he had paused in the hall to read a rather lengthened report of the demise, by operation of law (or, as Thomas himself would have briefly phrased it, 'execution'), of Mr Michael O'Shaughnessy, for the murder of another Irish gentleman, and that he had probably done so under his mistress's too vigilant eye. Nevertheless, deluded by the sweetness of her voice, Thomas, without thought of fear, at once allowed that he had stopped in the 'all, to read a few lines that chanced to catch his—

Before he could finish, Mrs Smyles had started from her chair, and confronted him like a demon; her eyes literally blazed with passion.

'You meddling booby! you inquisitive, impertinent hound! how dare you presume to open anything intended for me? Out of my sight—leave my house! What—you answer me? Take that!'

And therewith, a very handsome and rather weighty annual, whirling through the air, took the direction of Thomas's head; that gentleman promptly ducked, and a small mirror received the *Friendship's Offering*. A *Forget-me-not* following, with better aim, struck Thomas—so fate decreed—on the very eye with which he had proposed to check his mistress's ungoverned rage.

Having now lost every remnant of self-command, she would have proceeded to further violence, but by this time Thomas had rallied his astonished senses, and saw that he had but two alternatives—to seize and restrain the little fury by superior force, or, like Susan, to turn and flee. Thomas adopted the latter course, and, reaching his pantry in safety, devoted himself to the care of his more than ever melancholy eye, till dinner-time.

He did leave the house that evening, but it was with a five-pound note in his damask pocket, and permission to spend a fortnight with his friends.

These are but specimens, taken at hazard, from scenes of frequent occurrence in the household of Mrs Smyles, their trivial origin proving how slightly removed from actual aberration of intellect was the passion thus demonstrated.

Without the walls, the secret was kept with unwonted fidelity. Double wages and a most liberal table were an ample compensation for an occasional fright and a few bruises; and a certain dark tradition, concerning a cook's fractured skull, though far from being forgotten, was, by universal consent, regarded as a fiction. One thing only was certain, that Mrs Smyles never passed the threshold of the kitchen, and that the sight or mention of a rolling-pin would cause her to quiver from head to foot as with pain.

At the time the circumstances I am to relate occurred, Mrs Loveleigh Smyles, as has been mentioned, was out of town; of all her establishment, only two remained in charge of the mansion—namely, Filus Kroast and Martha Drabbit.

Tea-time—five o'clock—was at hand, but Miss Kroast, not waiting for the clock to strike, summoned her colleague to the table, declaring that she felt very low, and that a good cup would set her up again.

Martha unhesitatingly signified that she herself was a trifle beneath her usual elevation, and that the remedy aforesaid invariably set her upon her legs again with more vigour than ever.

On this occasion, Filus's depression did not yield to the accustomed panacea.

'That my sperrets was so low, I don't remember when the time was,' she remarked. Filus had a habit of reversing her sentences, which gave them an obscure and clever sound.

Martha merely replied with a dissyllabic grunt, which might be variously rendered: 'Dear me!' 'No, no!' 'Nonsense!' 'Poor thing!' &c., at pleasure.

'Something, I says to myself, when I rose up this morning, is going to happen, Phillis, this day.'

Martha thought that sufficient *might* actually have occurred, in the general universe, since five in the morning, to realise that presentiment; but her friend's solemn tone indicating a personal application, and her own sole idea of a catastrophe being fire, she contented herself with observing incidentally that the chimneys had one and all been swep on Toosday.

'And happen it will,' continued Filus, 'afore bedtime.'

Miss Drabbit, without actually quoting the Ides of March and Julius Cæsar, assented, in general terms, to the fact that the season of danger was not yet completely past; adding, moreover, a suggestion which, had it occurred to the illustrious Roman, might have changed the destinies of a world—namely, that by retiring to bed immediately after the present meal, they should at once terminate the day, and avert the omen.

But Filus, though nervous to the last degree, scouted

such pusillanimity; she would not retire a moment before the usual hour, come what might.

'Into my mouth my heart if even the very postman with a letter came would jump,' said Filus, 'and'—
RAT-TAT!

'Aggravating feller! He did that o' purpose, now,' ejaculated Filus faintly.

Martha hurried up, and returned with the letter, which wore a crumpled, foreign aspect.

'From missis,' pronounced Filus.

It was, and thus it ran:

'CHATEAU DE FRANÇOIS, NYON.

'PHILLIS AND MARTHA—Very soon after this reaches you, an individual will come to the house, and possibly remain there for several days. Not to puzzle you with many directions, I wish you to understand, my good girls, that you are to treat him, in all respects, *exactly as myself*. Should his dress or appearance seem strange, you will, of course, take no notice, nor will you evince the least surprise at *anything* he may choose to do. I shall explain to you hereafter. At present, I have only to warn you, my steady and faithful Phillis and Martha, that I expect these my orders to be obeyed to the very letter.—
Affectionately,
SERENA LOVELEIGH SMYLES.'

'Wot's an Individual?' asked Miss Drabbit, timidly breaking the pause that followed; for Filus was not a fluent reader, and being, moreover, a little perplexed with her mistress's spelling, was somewhat exhausted with the effort.

Miss Kroast affected to ignore her friend's question, but the latter pressing it—

'Why, a He,' said Filus cautiously. 'Didn't you hear, stupid? Missis says we are to treat *him* "percisely as herself."

'It must be a very particular *he*,' said Martha, only half-satisfied, 'for missis to make him master. S'pose you'll put Individual in the blue room?'

'S'pose you know nothing about it,' replied Filus sharply. '*Precisely like myself* is words that has but one meaning, and that is: "Put him in my room; give him my keys; take your orders from him; turn the house out o' winder if he sees the word; and if he breaks your 'eds, why, the less you speaks of it the better."

Martha felt that the one meaning was at least comprehensive; but her only audible comment was 'Drabbit it! I wish he want a-coming!'—a sentiment which harmonised so completely with Filus's own, that she could not forbear rebuking its premature expression.

'Drabbit! Drabbit! you forget yourself. (Martha hung her head.) 'No more of this, if you please. He is missis's friend. P'raps some furrin gentleman as doesn't want his name mentioned—they doesn't, sometimes. Who knows it ain't Lewis Napoleon himself? Missis knew him in England. When does missis say he's—"very soon after this reaches" — That's as good as saying "to-morrow."

'Rat—tat—TAT!'

Three slow knocks, the last delivered with great force, interrupted the conference.

'It's the Individual!' cried Martha.

'S'pose it *is*,' said Filus. 'Run up, child, and open the door. Say I'm coming.'

Martha lingered, as if afraid, until the knock was repeated, when, in obedience to a hasty gesture from her friend, she went up stairs. The bolts and chains seemed to take a long time to undo; at length, however, the door was heard to open, then instantly re-close, and Martha re-appeared, breathless.

'Twarn't nobody!'

'Don't tell me!' retorted Filus indignantly. 'What do you call that!' as, for the third time, the solemn summons re-echoed through the mansion.

'I'll tell you what I call it,' said Martha, bursting out crying—'a WARNING.'

'You'd very likely find it so, if mistress knew what a gaby you are making of yourself,' was the strong-minded reply. 'Go directly, and let him in.'

'I durstn't,' said Martha, for the first time in her life disobedient to her oracle. 'There ain't no Lewis Napoleon, nor nothing else, at the door!'

Filus wasted no more words, but, taking a candle—for it was now getting dusk—with the air of a Giovanni going to admit his petrified supper-guest, marched up stairs.

The chain was heard to fall, the door to open; then came a smothered shriek—a sort of scuffle; next, the candlestick reappeared, hopping down stairs alone, as though to announce the discomfiture of its mistress, who immediately followed, having apparently rolled or slidden down half the distance, and landed in the kitchen, with another shriek, to which Martha heartily responded.

'Shut your eyes! Shut your eyes! See what's a-follerin' me!' gasped Filus.

Finding these directions incompatible, Martha obeyed the latter, and beheld an enormous black ball, about two feet in diameter, come bouncing into the room. Brought up with a jerk by the leg of the dresser, the ball opened, became elongated, stood on one end, and presented the appearance of an almost impossible human being, something under three feet high. The head being of the size of full-grown manhood, looked, of course, preposterously large, and owing to the face being remarkably long and thin, occupied a good third of the creature's altitude. The countenance itself had nothing repulsive in its expression, being grave and melancholy, finished, moreover, with a pointed beard; and the attire of the strange little personage belonging also to a former age, he might altogether have suggested the idea of the executioner of Charles I. having somehow missed his stroke, and divided his illustrious victim about the hips.

'It's a himp! Keep off—keep off!' shrieked Martha, as the dwarf made a movement to approach.

'I'll himp you both,' returned the latter, his pensive smile changing to a ferocious grin, and a strange green lustre appearing in his eyes, like those of a cat in the dark. 'Stop your confounded noise, and behave like rational beings. You've got the letter?'

'Please, sir, are you an Individual?' asked Filus timidly.

'Understand distinctly that I am,' replied the dwarf, recovering his suavity. 'Don't put me out, and you'll find me a very agreeable one. Now, observe—this is my sole caution—Don't Put Me Out. Perhaps you did not expect me quite so soon?'

'Well, sir, we didn't,' said Filus, beginning to recover her self-possession. 'You see, mistress didn't mention your name, and we don't kn'—

'Did she tell you to ask it?' said the dwarf sharply. 'Now, don't put me out. However, I don't mind your knowing; and, indeed, it would be necessary, as certain friends—I allude chiefly to the Turkish Ambassador, Lord Viscount Seringapatam, and Sir Charles Opossum—will probably wait upon me early to-morrow. I am, on all ordinary occasions, accosted as The Venomous Fly; in the abandonment of private friendship, shortly "Legs," because, in that particular, nature has been short with me. Seringy and Opossum will most likely ask for me by the latter name; His Excellency the Effendi Hassan Mesour Mahound, by the former. Attend me to my bedroom. I sup there.'

With a trembling hand, and feeling very much as if she were walking in a dream, Filus lit a silver lamp, and led the way to the luxurious chamber of the mistress of the house. Those soft yielding carpets, gilded mirrors, costly cabinets, that couch of down on which a fly's spongy foot would leave a hollow, those delicate rose-tinted curtains, were such, in good truth, the destined surroundings of the hideous little

burlesque of humanity that came waddling after her into the rich apartment, as coolly as if he were entering an inn garret! Was nothing less deemed fit accommodation for The Venomous Fly?

Filus almost screamed, as with one bound he leaped upon the bed, and, rolling himself up in the rich coverlet, glared at her as if it were nothing but a mask stuck upright on the couch.

'What would you like for s-supper, sir?' stammered Filus.

'Eggs, brandy, and the cat,' was the reply. 'Now, don't put me out.' And the green eyes reappeared.

'He wants the cat to eat,' said Filus, staggering into the kitchen, pale as ashes. 'Here, Tittums! Tittums!'

Martha could bear no more; she caught her bonnet from a peg, and made a rush towards the door.

'For to be the Queen upon her throne, I wouldn't stay in this house another minnit!'

'Run away: leave me—do,' said Filus steadily.

Sarcasm is stronger than reproach; friendship is stronger than ambition. Not to be tempted by the offer of a realm, Martha paused at the thought of abandoning her friend. The latter saw her hesitation.

'Didn't missis tell us we wasn't to be astonished at *nothin'*?' she calmly inquired. 'Shewin' she knowed as the Individual's ways was peccolier. 'Cept that, when he's angry, his eyes turns green, I don't see nothin' to be frightened at,' continued the heroic Filus, gaining confidence with every word. 'Providentially, the cat ain't at home.' And Filus turned her back on the unconscious Tittums, curled up in the shadow of the clock.

As she spoke, a shrill, peculiar cry, compounded of a mew and a whistle, sounded from above; in a second, the cat shook off her slumbers, darted, in two bounds, across the room, and vanished, like a flash of gray light, up the staircase.

'As I'm a living sinner!' said Martha aghast, 'she knows him!'

This new phenomenon, however, did not affect Martha's determination to remain with her friend, happen what might; flinging aside her bonnet, she returned to her allegiance.

One of the best silver supper-trays being laid out in as attractive a form as the simplicity of the guest's order permitted, the two proceeded up stairs, Miss Drabbit bearing the light, which the other, in her bewilderment, had brought away. Any anxiety on behalf of Tittums was at once dispelled by the appearance of four green eyes exactly on a level. The cat was squatting on the pillow, close to the dwarf's ear, into which she seemed every now and then to pour some confidential communication, looking up searchingly at Filus as she entered, with a curious imitation of the dwarf's manner.

'Ha! Supper, Tittums!' exclaimed the latter, kicking off the coverlet, and sitting up, though the change of attitude made little perceptible difference.

The tray being placed on the bed, the cat at once skipped over and placed herself at the other end, never once removing her green eyes from her new acquaintance, but following his every movement with the most affectionate relish.

He was evidently out of humour, and, far from being gratified at the elegant manner in which his frugal supper had been served, grumbled incessantly, flinging the articles about, demanding why he was not served with plate, &c., and generally evincing the most lordly contempt for the luxuries with which he saw himself surrounded.

'And now,' said the dwarf, kicking off the tray without further ceremony, 'now for my riot. Lights, there!'

Filus lit a large table-lamp and two candles, but this illumination by no means contented the irascible

little monster, who continued to howl, 'More lights! More!' until all the available candlesticks in the house had been produced, and the room was in a perfect blaze. Then, twisting the delicate curtains into a sort of rope, and scrambling up, in a second, to the canopy of the bed, the dwarf commenced a series of gambols and gyrations that almost defy description. Dancing, leaping, turning somersaults, swinging by his imperceptible legs from apparently impossible places, swarming up the angles of the wall, and actually buzzing along the gilt cornice with strange insect noises, The Venomous Fly completely vindicated his title to the name. As for Tittums, after making one or two bold but futile efforts to follow her friend up the wall, she owned herself fairly distanced, and took her place, with a mortified air, among the audience.

During this performance, the two women had sat with open eyes and mouths, too much bewildered even to exchange a word. It pleased the Fly, however, to alight, in the course of one of his aerial trips, upon the top of a wardrobe; opening the door with one leg, and peering over, the Fly affected to be immensely struck with what he saw there, and forthwith disappeared, head first, into a sea of silk and muslin, closing the door behind him.

At this horrible sight, Filus could contain herself no longer.

'O my 'Evins! Missie's lovely gownds!' she shrieked, starting from her chair.

'Drabbit the himp!' exclaimed Martha, doing the same.

Before either could reach the wardrobe, the door reopened, and revealed the Fly completely attired in one of Mrs Smyles's most costly dresses, wanting nothing but a befitting head-dress to be in trim for the court-ball for which that identical dress had been intended.

'Put me out, *now*, and take the consequences,' hissed the dwarf, turning on the green light, and grinning with an expression so fiendish that the women recoiled. 'Where's my di'monds? Here's the Duchess o' Dishwasher waitin' at the door since half-past seven, and sends up her footman to swear she won't stand it any longer! Where's my jewel-box?'

'Please, sir, missie always sends her di'monds to the banking-house,' said Filus.

'Tell her Grace she needn't wait,' rejoined the Venomous Fly; and, in spite of the encumbrance of the dress, he threw a somersault from the wardrobe, and alighted in the middle of the floor. 'Turn off the lights; I'm going to bed. Wake me in the morning, when your mistress sends my luggage;' and, just as he was, he jumped upon the bed, and pretended to fall instantly asleep.

'I'm all in a twirl,' said Filus, as (the Ides of March at length concluded) the two lay down on their respective couches. 'But I've made up my mind to one thing—he shan't riot no more in missie's room without the pelisse a-looking on. "Luggage!" I don't believe he've got no luggage. Hapes don't carry much of that sort o' thing.'

'Nor yet himps,' put in Martha, faithful to her diabolical theory.

Filus admitted that the provision made in this respect by such personages was probably slender; then, finding her companion too fatigued for further converse, quickly followed her into the land of dreams.

Much to their surprise, early on the following morning, a goods-van deposited at the house three travelling-chests of enormous weight, carefully locked, and secured with iron hasps. Direction-cards, in the lady's own hand, commended them to the 'Care of Mrs Loveleigh Smyles, 14 Sweet Street, Pleasant Square, S.W.,' the cards made use of proving to be visiting-tickets of her own. A parchment label, attached to each trunk, bore, in bolder characters, yet still unmistakably those of Mrs Smyles—THE VENOMOUS FLY.

The trunks having been conveyed, not without much difficulty, into an inner room, the two sat down and looked at each other.

'Hem!' remarked Filus generally.

'Eh?' said Martha inquiringly.

'Ah!' (with a sigh).

'Poor thing!'

'You dursn't think,' began Filus, boldly feeling the way.

'I thinks what I thinks,' replied Miss Drabbit, not sullenly, but, as it were, reluctantly admitting a painful fact.

Filus became impatient.

'S'long as I've known you, and so kind as I've been to you, Martha Drabbit, and you afear'd to speak out?'

Martha refused the trap, and politely turned the enemy's flank.

'What's the use? You're always guessin' one's thoughts, Filus. Now!'

Filus yielded with a smile.

'Well, well, child, you're right for once. There's only one way of accounting for all this.' She put her mouth to Martha's ear—'*Missie is cracked!*'

A long consultation followed upon the questions arising from this new theory, resulting in a twofold resolution—namely, to let things generally take their course, at least for another day, and to consult—in an unofficial manner—P 126, with whom Martha boasted a nodding acquaintance, and who might be seen, at that very moment, prosecuting his listless stroll.

'P 126' readily responded to Martha's signal, and listened, with that entire absence of astonishment which characterises the force, to Filus's relation of what had occurred. He didn't see no call for thinking Mrs Smyles was cracked. He knowed a lady which kept a baboon, what used to play up all manner o' shines among the movables. *She* wan't cracked, though some cups was! Now, here it lays (considered P 126). So long as this dwarf doesn't actually *prig* nothing, the hands of the plice is tied. And how can he prig? All that's not his'n's hern; and, 'cording to her orders, all that's hern's his'n! Why, he *can't* prig (said P 126, with honest warmth); at least, there's never a beak as I knows on what would take the charge. *That's* how it lays.

Unsatisfactory as was the attitude, Filus allowed it to remain there, and about noon the following day the dwarf rang the bell, and demanded his luggage.

Upon Filus's report of its weight, however, the Fly was induced to descend (which he did by buzzing down the balusters without touching the stairs) and make a selection. He chose the heaviest of the three trunks, which was, with infinite labour and ingenuity, transported to his chamber. Once there, the dwarf produced from his pocket the key, and Filus, having with the aid of hammer and chisel detached the metal fastenings, was dismissed with her companion from the room.

For nearly an hour, no sound from above reached their ears; at the end of that time, Filus, crossing the hall, thought she heard a shriek of laughter. She stopped. It was repeated. Curiosity overcoming every other consideration, she crept softly up stairs, and applying her eye to the keyhole, saw the dwarf standing upon his head in the middle of the room, and ever and anon indulging in peals of triumphant laughter. Near him stood one of the dressing-tables, swept of its usual contents, but laden with rows of curious substances, grotesque and various in form, but all of one hue.

'My 'Evins!' thought Filus. 'Whatever can you want of all that yellor soap?'

At the instant, a thundering knock resounded on the house-door. She saw the dwarf leap to his feet; then, waiting just long enough to admit of the possibility of her having run up stairs, Filus tapped at the door, and inquired whether, in the event of the visitor

proving to be Sir Charles Opossum, that gentleman should be admitted.

'At your peril!' screamed the dwarf. 'Say I'm out—say everybody's out! Run! Fly!'

There was something in his voice so expressive of genuine consternation, that Filus could not forbear another peep. His face was perfectly livid. He was replacing his yellow soap in the box with such anxious haste, that Filus completed her observations with perfect safety. The knock, however, was repeated, and she flew down stairs.

'Hollos, I say, young woman! you haven't fatigued yourself, I hope?' was the frank address of a man about eight-and-twenty, who had just dismissed a cab, and supported a small but weighty valise in his hands. He had handsome features, much embrowned; his black hair hung in corkscrew ringlets almost to his shoulders; and he wore heavy gold earrings. As for his dress, it partook so impartially of two characters, that he might be described either as a maritime farmer or an agricultural seaman, according to fancy. 'You've got the letter?' he continued, coolly walking before her into the dining-room.

'The l-l-l—'

'Etter,' said the visitor, shewing his white teeth—'my sister's l-l-letter. And the b-b-boxes. Three boxes. How! hollos! What's the game now? Is the girl going to faint?'

He might well ask; for, in that terrible moment, had flashed upon Filus's mind the probability, nay, almost absolute certainty, that the Venomous Fly was an impostor! Visions of the desecrated chamber, the damaged ornaments, the torn dresses, floated across her bewildered fancy. She could hear the treacherous insect himself, above, still busy with his soap. *His soap?* The soap of the man who stood there before her eyes, sternly demanding, again and again, if his boxes were safe!

But Filus Kroast was no common woman. In a second it occurred to her that the dwarf could be suppressed, the boxes re-secured, the room re-arranged; all might yet remain a secret, saving only the destruction of one or two articles of value, for the announcement of which a favourable opportunity might be chosen. This resolved, Filus hastily assured him that all was well; that, in a few minutes, rooms would be ready for his reception, &c. She offered to take his valise; but, small as it was, such was its weight, that the stranger, with a smile, tendered his assistance.

'You seemed a little upset at my outlandish rig,' he added, good-humouredly. 'Fresh from the diggings, that's all. My name's Jack Hylton, your dear mistress's only brother. See the likeness now, eh? Landed at Liverpool a few days ago from the splendid clipper, *Venomous Fly*, sent on my traps with the direction Serena had written for me, and here I am. Room ready?'

Begging him to remain a few minutes in the parlour, Filus swept up the stairs, and burst, like an avenging angel, into the dwarf's room. He had not quite concluded his packing, and turned on her his green eyes with a look of fury that, at a less desperate moment, might have kept Filus at bay. As it was, she rushed right upon the little monster, and twisting her hands in his thick black hair, shook his Charles I. head till it looked like a sign of that monarch quivering in a storm.

'You aggravatin' little devil!' cried Filus, shaking with all her might. 'You missis's visitor? See what you've been and done! Me and Martha's ruined, and all for your games! Here's the gentleman belonging to them soap-boxes, and he wants 'em this instant-minnit!'

With a violent wrestle, the dwarf shook himself free.

'Soap-boxes!' he exclaimed. 'It's gold!'

'It's never gold!' echoed Filus faintly. 'We shall

all be hanged. Hark!' (The parlour bell rang violently.) 'You come along with me. Quick, quick, or I'll call a perlice myself. If we can only get you out.'

The Venomous Fly seemed to admit the wisdom of the counsel. He cast one long wistful glance at the precious 'soap,' and followed Filus like a lamb. They reached the hall in safety.

'Now,' said Filus impressively, 'whatever wild-beast-and-monkey show you 'skeep from, it's better for you than them public streets after *this*. Get back as fast as you can, and tell them, with my compliments, to give you a hidin'.'

Whether the Fly would have implicitly followed these directions, will never, perhaps, be known, for at this moment Hylton's hasty step was heard on the hall floor. Filus had just time to push the dwarf into the cloak-room, in which stood Hylton's remaining boxes, and a large empty trunk of her mistress's. Valise in hand, Hylton approached them.

'Into that big box! Quick!' whispered Filus, in an agony. 'Put something between. It shuts with a spring. You'll be stid!'

'Hollos! about these rooms,' began the visitor.

Filus saw that the dwarf was hidden.

'In a moment, sir,' she answered, and pulling-to the door behind her, dashed up stairs.

The door, however, had not closed, and Hylton catching a glimpse of his own boxes among the rest, heaved the weighty valise upon the chest that stood nearest, and locking the door, pocketed the key. As he did so, he fancied, as he afterwards related, that he heard a faint, plaintive cry; but uncertain from whence the feeble sound proceeded, turned at once away.

Assisted by her trusty friend, Filus quickly succeeded in restoring the box of gold to its original state of (false) security, and removed it to the room intended for Mr Hylton. The question now was how to account for the possession of the key, when the consultation was cut short by the appearance (guided by their voices) of the impatient gentleman himself, key in hand.

'The portmanteau, sir?' asked Filus. 'Shall I?'

'Ah, stay, I'll go myself,' replied Hylton; and, hastening down stairs, returned with it on his shoulder.

Oppressed with an indefinable anxiety, Filus had followed him down, and no sooner was his back turned, than she crept into the cloak-room. It was always dark, and now, with its great sarcophagi of boxes, looked more than ever vault-like.

'Dwarf!' (Her voice sounded quite hollow.)

There was no reply.

'Speak, you aggrav— Ho! my 'Evins!' and Filus staggered forward in horror. *The chest was closed!* The spring, in spite of the introduction of a portion of the unfortunate sleeve, must have yielded under the sudden weight of the valise flung upon it an hour before.

With trembling fingers, like those of a repentant murderer, Filus sought the fatal spring, touched it, leaned heavily forward, saw the horrible confirmation of her fears, and again dropping the heavy lid and closing the spring, fell back in a dead swoon. In falling, she struck her head against the corner of one of Hylton's heavy boxes, and hence, perhaps, her long insensibility, for nearly two hours more had elapsed, when Martha, seeking in some anxiety her friend, discovered her in the condition mentioned.

It seemed fated that nothing should save the ill-starred little monster, for no sooner was poor Filus restored to consciousness, than the horror of her mind induced another period of syncope, and this was succeeded by an attack of fever and delirium, which lasted several days, during which, by Mr Hylton's orders, every possible care was lavished on the sufferer. In spite, however, of the patient's incoherent

ravings, none of the watchers obtained the slightest clue to what had in reality occurred.

It was on the fifth day of Filus's illness, and after it had taken a favourable turn, that Mrs Loveleigh Smyles, who had hastened her return to meet her brother, reached home, and found all, except poor Filus, pretty much as she had left it. She was full of gentle sympathy, and insisted on sitting nearly an hour at the bedside of her sick servant, whose anxious heart and still bewildered brain could hardly realise her presence. Oddly enough, one of the topics with which the kind lady sought to amuse the invalid was a visit she had received in Switzerland from a travelling dwarf, who tumbled and conjured, to the great amusement of the household, for an entire day, making himself completely at home; so much so, indeed, as to lay himself open to the imputation of having finally marched off with more than belonged to him. Poor Filus turned upon her side with a groan. She had not the strength to speak, had she wished it; but she was conscious of a miserable feeling that to-morrow, if not to-night, must reveal all.

It was nearly noon on the morrow—Mr Hylton having gone out—when Thomas of the 'haye,' with some trepidation, introduced to his mistress a gentleman who had politely, yet persistently, refused to intrust Filus with his name. There was a certain something in his quiet demeanour which rose superior to conventional rules, as he silently placed on the lady's work-table a neat visiting-card, inscribed, 'Mr Adolphus Winnington (detective), Great Scotland-yard.'

The word thus modestly placed in a parenthesis, as if it were of no particular significance, alone caught Mrs Smyles's eye. She started slightly, but before she could open her lips, Mr Adolphus Winnington opened his.

In apology for his intrusion, he would hasten to say that its sole object was the removal of some slight—almost ridiculously slight—misgivings which had been excited in magisterial minds by the receipt of a very singular communication, emanating, it was imagined, from some lunatic, yet one whose mental incapacity it was desirable to place beyond all future cavil. The letter was signed—Mrs Smyles would laugh—'Rolling-pin,' and related to a supposed—ha, ha—murder!

Mrs Smyles did not laugh, but, on the contrary, turned so deadly white, that the officer, thinking she was about to swoon, made a step forward to support her. She rallied, however, and, grasping the table, looked her visitor full in the face.

With just a shade less of respect and ease of manner, the latter continued:

Could Mrs Smyles remember having seen or heard anything lately of a certain deformed person—a sort of travelling mountebank—a?—

Dwarf? Assuredly. He performed, not long since, at the Château de Prangins, Nyon, which Mrs Smyles had tenanted.

Exactly. And had since performed in Sweet Street? At that house?

Most certainly not.

Mr Adolphus Winnington consulted a memorandum, and read with some gravity: "Venomous Fly," otherwise "Legs," traced from Nyon to Maçon—thence to Dijon—thence to Paris—thence to Dunkirk—thence to the "Showman's Arms," Puppet Lane, London—thence to 14 Sweet Street, Pleasant Square—trace lost!

'Impossible, sir!' said the lady, rising indignantly. 'My servants would never have dared. But I will go and question them.'

'Excuse me,' said Mr Winnington, his manner becoming, by almost imperceptible degrees, more distant and official; 'that is precisely what I cannot allow. Let me explain myself a little further. We have been informed, madam—I know not how truly—

that you have been in the habit of exercising a more than usually energetic influence over those in your domestic employ, extending even—pardon me if in error—to personal violence. I see you are agitated.'

'If,' replied Mrs Smyles, controlling herself by a strong effort—if an infirmity of temper has at any time given colour to such an imputation, what, may I ask, has that to do with the subject of your visit?'

'To speak with entire frankness,' replied the officer, 'two things: first, that your servants will be better examined by another questioner than their mistress; secondly, that the infirmity you have mentioned may possibly—I say, possibly, but our duty compels us to weigh such contingencies—have had some remote connection with the sudden disappearance we have been discussing.'

'Sir!' exclaimed the lady, her eyes flashing scorn and fury. 'Do you mean to accuse me of murder?'

'That,' replied Mr Adolphus Winnington, with perfect coolness, 'is the precise expression selected by our correspondent "Rolling-pin," and which appeared to magisterial minds sufficiently emphatic to warrant my present intrusion. He or she (for a gentleman attached to our office for the especial purpose of studying autographs pronounces it to be the writing of a female cook with lightish hair) actually indicates the spot where the body may be found.'

'Body, sir!' shrieked Mrs Smyles. 'I—Hark!'

There was a sort of scuffling noise without, accompanied by earnest voices and a feeble hysteric scream; then the door burst open, and Filus Kroat, looking like her own spectre—pale, disordered, half-dressed—staggered in, supported by the faithful Martha.

'I want to confess! I want to confess!' cried the poor woman, sinking on her knees.

'Drabbit the himp, do,' was Martha's advice.

And with many sighs and tears, Filus faltered out the whole history of the wretched dwarf's appearance, his accident, and death. It was clear that the ill-fated creature had by some means possessed himself of the contents of the letter addressed to the servants by Mrs Smyles, its mysterious expressions having suggested to him the idea of personating the individual therein referred to. He had likewise stolen the key of the treasure-boxes, and, outstripping Mr Hylton, arrived, as we have seen, in Sweet Street as the expected guest. How the idea of some catastrophe having occurred could have been imported to the police authorities, was known to the latter alone. It was probably the result of a consultation between the treacherous P 126 and the mysterious 'Rolling-pin,' an old acquaintance of that gentleman's, once cook to Mrs Smyles, but who had quitted that lady's service on account of a rather severe accident to her head in tripping over the cat.

These latter explanations found, of course, no place in Filus's confession, that young lady confining herself to the sufficiently startling facts that had succeeded the dwarf's arrival.

Even the tranquil face of Mr Winnington shewed some disturbance, as he prepared to lead the way towards the fatal room. Mrs Smyles, overcome with grief and horror, nevertheless would not be left behind. She took the officer's proffered arm, and the party proceeded to the spot.

No sooner was the door opened than the sickening intimation of animal decay made itself strongly perceptible. There was no need to point out that dark coffin-like box, from whose close-clenched lips still depended, like the corner of an escutcheon, a portion of the dwarf's embroidered sleeve.

Mrs Smyles withdrew her arm, and leaned heavily against the wall. The two maids crouched on the floor in the entry.

With some little difficulty, Winnington discovered the fatal spring, pressed it, and flung back the lid. Recoiling for a moment before the odour which diffused itself through the vault-like room, he forced

himself to a closer examination. He utters a kind of gasping sob; he tears out the dwarf's coat, and flings it on the ground. He drags the box a little forward: 'Behold your murdered victim!'

At the bottom of the chest, arms and legs extended, as in the agonies of a violent and painful death, the yellow-green eyes, lustreless indeed, but wide and staring still—lay THE CAT!

Little remains to be told. A small window at the back had evidently supplied the murderer with the means of exit, leaving the body of the too confiding Tittums in token of his disappointed malice.

Poor Filus never entirely recovered the anguish of those days of trial; she survived it, indeed, for some years, the favourite attendant of her mistress, from whose lips a harsh word was never again known to issue.

As touching the mischievous author of these doings, the police pledged their professional honour that he should be in custody within four-and-twenty hours. That honour was forfeited. After a lapse of ten days, a Liverpool paper calmly announced the departure, under highly favourable circumstances as regards wind and weather, of the renowned clipper *Greased Lightning*, Captain Knever Naught; adding that, on the very point of sailing, a most welcome and interesting addition to the passenger-list was made, in the person of the celebrated dwarf, Signor Torriano Tomblero, otherwise 'The Venomous Fly,' bound—among many individuals of more developed growth—for the Melbourne diggings.

Mr Winnington has not since been seen to smile.

CREDIT.

'ACCOMMODATION,' on the high authority of Mr Bindloose, W.S., the honest lawyer in *St Ronan's Well*, is the 'grease that makes the wheels go.' And though the petulant old nabob for whose benefit the remark was promulgated chose flatly to deny it, many millions in both hemispheres would agree with Mr Bindloose. Credit is as true a cosmopolite as Death itself. And yet there is something strange and anomalous in the idea of this cherished institution. Nature gives us no credit. Work first, and eat afterwards, says that stern Necessity whose laws overrule all others. Even Cereops or Ceres could hardly have persuaded the unsown fields to yield a crop of golden grain; we must till the land before we can eat of its abundance. The hunter himself must 'catch his hare' previous to dinner-time; and nothing but the fruits of the forest and the shell-fish of the shore seem to cry, like Mohammed's roast pigs, 'Come, eat us.'

The ways of men, however, as has been well observed, are more pliant and variable than the serene steadiness of nature. It is easier for a beggar to amass a fortune, or a foundling to blossom into court-favour, than to attain any goal in the exact sciences without accuracy of method. In the laboratory, we cannot perform the commonest experiment unless the conditions of proportions and temperature are minutely attended to.

But credit is a parasitic plant that clings to the mighty tree of growing civilisation, flourishing as the latter flourishes, nourished on its sap, and not seldom threatening, like the bush-vines and creepers of South America, to garrotte, stifle, and utterly destroy the poor smothered patron. It has a rank and rapid growth, like that of the fairy bean-stalk, and is quite as quickly toppled down. But, with all its aptitude for good and evil, it is a sure mark that no small progress has been made on the social ladder. Savages, the ruder tribes of Africa and Polynesia, hardly know what credit means; for credit, though often as treacherous as the mirage that shews mock lakes and meadows amid the thirsty sands, is always based on some solid foundation that is, may be, or has been, just as the mirage is a photograph of real water and

grass afar off—it is based on property, and savages have none; on honour, an unmeaning sound in the ears of many a tribe of greedy barbarians; on truth, which the savage never tells when a fib will serve his turn. Credit can only exist where men have some respect, however slight, for each other's probity and power to pay.

In the earliest day-dawn of history, we find mention made of lending and borrowing. The Hebrew women went out into the wilderness, glittering with borrowed trinkets, nor is this loan on the part of the Egyptian females to their Jewish neighbours spoken of as by any means a novelty. No doubt but that the common operations of finance went on in Egypt as in India and China, and the Jewish law contained many clauses treating of debt and mortgage, interest, pawns, and redemption, as well as the grand provision of the Jubilee, when the slate was washed clean, and all debts forgiven.

Athens and the other commercial states of Greece understood the meaning of credit pretty well. Athenians could underwrite ships, and other Athenians could burn or sink the said ships, for the sake of the insurance money, precisely as Captain Sly and Birkenhead Billy do now a days, to the detriment of Liverpool brokers. Also they went into partnership, formed joint-stock companies, and passed through a classic Bankruptcy Court, as well as moderns could desire. Their interest on money lent was very high, however, and high interest usually implies that coin is scarce, and risks considerable. Throughout Asia, this rule holds good at the present day; loans are procurable everywhere, but not cheap loans. 'A very high figure' might be written in letters of gold over the door of every shroff and merchant from Jeddo to Jaffa. Whether the lender be a soft-voiced Bengalee in a white turban, with sharp claws hidden beneath the velvet of his touch, or a long-eyed Chinaman in flowered gown and satin boots, or a wasp-waisted Persian with a black cap of lambakin, you must pay smartly for trust; unless, indeed, the borrower be the solvent British government, and even *they* can bargain better in Lombard Street than in the Black Town of Calcutta.

Much credit was given in Rome, but generally from the strong to the weak, by the patricians to the plebs. The nobles—Claudian, Julian, Fabian—seldom turned a deaf ear to the poor freeman who sought an advance of ready money. Pollio or Validus got his denarii, signed the bond, made his bow, and backed, rejoicing, out of the great man's presence. But woe betide poor Pollio when the bad harvest came, or the olives yielded half allowance of oil, or the cattle got the murrain; woe to poor Validus when his trade fell off, and he got that sore wound in battle with the Samnites, and never a sesterce of spoil to pay the doctor's bill; for then noble Claudius, or Julius, or Fabius, procured a ca-sa and a fi-fa, and ate up his debtor, body and bones, wife and children, chattels and plough-oxen. Torture, slavery, and imprisonment with hard labour, in a private jail some two stories beneath the banquet-hall of the illustrious usurer, were the lot of all recalcitrants, and well for them if they ever got clear out of the creditor's clutches.

There was credit to be found in feudal Europe, but it was a timid credit, and kept alive, like a flickering candle, fed with the pabulum of high interest. Half the loans we read of in history imply nothing but disguised robbery. Kings borrowed without any thought of repayment, not only from helpless Jews, with whose molars and incisors they could take cruel liberties, but from rich cities and wealthy provinces. But they sometimes gave money's worth for the money, privileges of fair and market, shrine and seaport, and so cleared off the debt in a left-handed manner. The wonder is, not that monarchs and barons should have found such difficulties in raising cash, but that, considering the stormy times and the

general bad faith then prevalent, they should have been able to conjure forth so many bright bezants and rose nobles.

Credit, after all, is a republican institution, the word republican being taken in its broadest sense, as implying a free commonwealth, with or without a prince; and this is especially true of public credit. In the old Hellenic days, a member of the Athenian Demos could obtain a loan more easily than if he had been a subject of Persia or Colchis; and in middle-aged Europe, the first banks were opened by the great trading communities of Venice and Hamburg, Genoa and Bremen, the Hanse Towns and the rich republics of Italy. Holland, in the seventeenth century, had better credit than France, and very much more credit than England, against which the balance of exchange turned until the reign of Queen Anne. Credit shewed a catlike attachment to her old haunts; and the French revolutionary armies undertook sudden assaults upon Bern and Genoa, Venice and Amsterdam, almost entirely for the sake of laying hands on the vast deposits of gold and silver, plate, gems, and valuable securities which were kept in the banks of those cities.

How credit bloomed and ripened, bearing fruit in the shape of bill and note, of goldsmiths' receipts, of treasury paper, warrants, *bons*, orders, and lastly of coupons and bank-notes, it would take long to trace. But it seemed to culminate in the free circulation of notes, whether we take our idea of the latter from the rustling promises to pay, lithographed on tough silvery paper, full of traps for the forger, or from greasy colonial productions, or from those illegible florin notes, chopped into quarters, which Austrians gravely extract from their pocket-books when they would settle a demand. How commonplace, and yet how wonderful, is the trust reposed in those flimsy bits of printed paper, frailer than crispest piecrust, yet with deep roots that strike into the very heart of the state. Any two higglers at a pig-fair, any two miners at the mouth of a Northumbrian coal-pit, exhibit a confidence in their rulers and their fellows, that the subjects of Chosroes and Ptolemy never displayed. They feel sure that the trumpety slip of paper, scarcely fit to light a pipe, represents ringing gold, sterling silver, bread, beer, fuel, what you will, to its full nominal extent; and, wonder of wonders, their credulity does not outstrip performance, and faith is kept with all. The first thought of one of the sublime despots of elder days would have been repudiation, and the public creditor would have stood more chance of being paid in dry blows, or a stab from some gholam's dagger, than of getting his due in hard cash.

This good faith, the vital air of credit, the lack of which sends money crawling, creeping, trickling through all manner of obscure channels, further and further from the doomed country, is a puzzle to barbarians. Semi-civilised men have a strong impulsive wish to chop down the tree, in order to eat of the fruit. They wring the neck of the goose that lays the golden eggs, and never find out their error till the supplies are stopped. Morier tells that the Persian ambassadors of thirty years since could never comprehend our national debt; they talked much of it, they questioned their English friends, and sent home valuable dispatches on the subject of this fabulous liability of Britannia's. But when they were shewn the park of artillery at Woolwich, and heard the roar of ordnance on a field-day, they refused to hear any further explanation of the debt, declaring that the British government possessed cannon and gunpowder enough to blow debt and creditors into infinite space, and that, under these favourable circumstances, no demand for payment was possible.

If credit rested solely on the solvency and honour of a government, its operations would be sadly restricted; such, however, is very far from being the

case. The very humblest person gets trusted by somebody. Poor copper-skinned labourers in Mexico know this but too well: they have been imprisoned in a net-work of debt from early manhood; their marriage-dues, the fees at christening-feasts, burials, and festivals, have kept them in arrears with the Cura of the parish; they started in life owing a great deal more than they can ever pay to the Ricco, the rich lord of the soil, or probably to his steward; and somehow they hoe and dig through a lifetime, living frugally, toiling hard, seeking advances on a feast-day, but never out of debt to priest and employer. Credit makes slaves of them, and they live and die with their names always on the debit side of the Señor Intendant's books.

Hindu ryots, Polish peasants, French peasants, are almost all in debt, the former for seed-rice and the pulse and grain that nourish his family, the second for brandy, and the third for the means of buying or keeping land. So is Giles yonder, slouching along in his smock-frock, and who will not have much left out of his harvest-money if he clear off every score for loaves and ale, shoes for one child, corduroys for a second, and groceries for the 'missus.' Smart Jack, rolling in a semi-intoxicated condition through Rateliff Highway, has 'drawed' as large a slice of his unearned wages as the manager of the shipping-office will permit, and must work like a horse to win what he has spent sillily enough. So the Honourable Augustus Velvetcap, gentleman-commoner at Christchurch, sauntering with privileged boots over the sacred grass of the quadrangle, has made use to the uttermost of the great engine which civilisation has placed at his disposal. Mr Velvetcap has a 'tick' in every second shop from Maudlin Bridge to Beaumont Street, and his noble name blackens the ledgers of pastry-cook and haberdasher, and all who can furnish raiment or dainties, hacks, tandems, or jewellery to a young gentleman of large and catholic tastes. The Honourable Augustus, differing in this respect from Giles and Jack, has never yet been asked for a farthing on account of his several liabilities. They will wait, those bland Oxford tradesmen, very Jobs and Patient Griseldas towards a customer of Mr Velvetcap's kidney. But how that venerable nobleman, his father, will fret and fume when the whole shoal of bills shall pour in, next year, addressed to Right Honourable the Earl of Hammersmith.

Credit, unluckily, has two faces, and can be malign or benignant according to the manner in which her potent aid is invoked. She is a fairy, whose wand can do wondrous things, and it is due to her that companies can be founded for purposes the most useful and beneficial. She bridges the morass, spans the land with iron rails, and the sea with copper wires, and is building, spinning, making, and gathering all that can well be built, spun, made, or gathered. But unhappily she has a trick of inflating bubbles of all sorts and sizes, that glitter with rainbow tints more or less gorgeous and alluring, then suddenly collapse into nothingness, and leave ruin and weeping behind them.

Credit is indeed what literature has been said to be, an excellent walking-stick, but a treacherous crutch. With a sound foundation of solid capital, backed by brains, energy, and an honest purpose, credit may be safely employed within certain limits. But of all castle-building, the most perilous is that which trusts for its materials to credit alone, an inexhaustible quarry, as it appears to many sanguine souls; and the towers are soon run up, battlement and bartizan, arch and wall, as fair a palace as ever stood, and all for nothing. A touch, nay, a breath is enough to dissolve the whole aerial structure into emptiest air, and nothing is left but the architect, crushed and grovelling beneath the rubbish he had rashly piled on such a fabric as this.

We all cry Shame upon you, to the blatant

joint-stock company that has fallen into merited disaster. How the great hollow bully came abroad upon the world, with brazen flourish of prospectus and lackered list of directors, well speckled with titles, and spiced with names of decent city fame—how it flaunted and strutted, bragging of its mighty deeds in futuro, vaunting of the riches to be poured from its exhaustless cornucopia, and rather accepting than soliciting our tribute of spare cash. 'Early application is necessary,' said the company. 'No request can be attended to after the 19th inst,' said the company; and we admired them the more, and besieged their doors the more, for the fact that they appeared so nobly indifferent to us and our demands for shares. We waylaid the directors; we set snares for the secretary; we fought with one another to force our premiums on the scornful company. And lo! it was a cheat from the beginning. All this confidence was based on our credulity. The paid-up capital was in our own purses; the accounts were cooked; the prospectus lied as only a prospectus can lie, and the whole thing was a bubble. It has burst now, amid universal hooting; and we can daily read the most edifying newspaper articles on the abuse of credit.

But credit may be abused by retail, and in the quietest manner. When young Jones, the milkman, fails in business, we are all sorry for him and poor little Mrs J., the pale, civil-spoken wife, and for the small family cast bankrupt on the world. But the truth is, Jones had no right to be in business at all. He was a daw in borrowed plumes, not having the where-withal to pay his cow-keeper or subordinates, and being under the thumb of a 'party' who had lent him the capital to start with. High interest, coupled with inexperience, and a few slow-paying customers, toppled down the milkman's frail establishment as remorselessly as recklessly overtrading and big-voiced dishonesty overthrew the defunct company aforesaid. It is impossible to pity the company; it is impossible to refrain from pitying Jones; but both serve in their different spheres to illustrate the fact, that credit, like fire, is a good servant, but a merciless master.

HOW TO EMPLOY OUR IDLE SOLDIERS.

OUR soldiers, poor fellows, work hard enough during a war. Their fighting, marching, bivouacking in wet and cold, walking foot-sore in over-worn shoes, lying down in mud and swamp to sleep, hurrying up again to resist an approaching enemy, snatching a hasty meal badly cooked, going dinnerless if the commissariat fails—all this is indeed hard work, or at least hard life. But it is not so in barrack-life at home. The cavalry may have to look to their horses, and the artillery to their guns; but the infantry, who form the main bulk of the army, have very little to do besides mustering and parading at certain hours. When an uneducated man is idle, an evil result is almost inevitable; and this enforced idleness of the troops leads to great mischief, as the best regimental officers are well aware.

In December 1861, the late Sir George Cornewall Lewis, in his capacity as Secretary of State for War, appointed a military committee 'to consider and report upon the instruction and employment of soldiers in trades.' The committee consisted of Major-general Craufurd, Major-general Eyre, Colonel Longden, Brigade-major Milward, and Captain Martindale. The committee were requested to form the best opinion they could concerning the practicability of teaching useful trades to soldiers, their sons, and their daughters, and of furnishing employment for the persons thus taught. They were asked to say—whether the system pursued should be garrison or regimental; at what garrisons or dépôts it should first be tried; what buildings it would be necessary to provide, at what cost, and how to be

defrayed; what tools should be provided, and how paid for; how materials should be purchased, and accounted for; what rate of payment the trade-teachers should receive, and out of what fund; what prices should be charged and paid for work done; the kinds of trade to be taught and practised; the kinds of encouragement best to be given to induce soldiers to learn; the best mode of disposing of the profits; the keeping and auditing of the accounts; the degree to which such artisan-soldiers or soldier-artisans might usefully be employed upon barrack repairs and other public works; and the general regulations that would be necessary for carrying out the whole system.

The Report of the committee contains a large amount of useful information on all these matters. The committee sent to the commanders of all the military districts, requesting that boards of inquiry should be appointed to give their judgment upon the several questions propounded by the Secretary of State. No less than forty-seven such boards were appointed in the several military districts of the United Kingdom; and each board generally comprised a commanding officer, a captain, a quartermaster, an engineer officer, and a barrack-master—one or two more or less according to the circumstances of the district. It certainly seems that no fairer mode than this could be adopted to ascertain the opinions of officers in the army, founded on experience acquired under very diverse circumstances. Other men of acquisitions were addressed personally, on account of their knowledge of different parts of our military system—such as Sir John Burgoyne, Inspector-general of Fortifications; Dr Gibson, Director-general of the Army Medical Department; Colonel Crutchley, Commandant of the Royal Military Asylum at Chelsea; Major Powys Keek, chairman of the Soldiers' Daughters' Home at Hampstead; Colonel Harness, Director of the Royal Engineer Establishment at Chatham; and Colonel Chapman, Deputy Adjutant-general of the Royal Engineers.

Every one of the officers individually addressed, except Sir George Brown, and every one of the forty-seven boards of inquiry, except that at Dublin, cordially assented to the opinion, that it would be very beneficial to the army, and through the army to the nation, if the soldiers could be taught and induced to work at some trade in the intervals of their military routine duties in barracks and garrisons. Sir George Brown, a veteran of the old Peninsular days, did not like what seemed to him a new-fangled idea. 'I am decidedly opposed to the project,' he said, 'because I consider it a fallacy to suppose that soldiers on home-service have too much time on their hands, however much it may be the fashion to say so; and am persuaded that if the men of the army are to be employed as tradesmen, they will soon cease to be good soldiers. I am against encumbering the troops with, or rendering them dependent on, establishments which they are compelled to abandon when ordered to take the field; and although it may be necessary to employ regimental tailors in fitting, repairing, and making trifling alterations in the clothing, I am not of opinion that it could be made up regimentally with advantage to the troops, while such an arrangement would assuredly afford another opening for fraud and speculation. For the same reasons, I am opposed to the establishment of regimental shoemakers' shops; but the shoemakers may be permitted, and even encouraged, to work at the repairs of the boots or shoes of their respective companies during their own hours, and when not required for any other duty, as the only organisation of this description of work that is applicable for field-service.'

Like the school-boy, who gets rid of his least juicy apple first, that he may have the best to look forward to, we have got rid first of nearly the only unfavourable argument against the policy of employing soldiers

in trades. In almost every other quarter, the plan was viewed with approbation. Without going through the forty-seven Reports from military boards, and the thirty letters from distinguished officers who wrote in their own names, it will suffice to notice briefly the recommendations to which the committee eventually arrived.

It is recommended that the system adopted should, as far as possible, be self-supporting; that it should be regimental in its organisation; and that the officers should be invited to render it their countenance and aid. Every regiment contains what are called *pioneers*, who are not always (as they should be) regular workmen; it is therefore recommended that in future they shall be chosen only from real artisan-soldiers. The pioneers of a regiment ought to comprise three carpenters, two smiths, two bricklayers and masons, and one painter and glazier; and the appointment to these pioneer-offices ought to be made a kind of reward for men who are at once good soldiers and good mechanics. The pioneers would act as instructors to men and boys in the regiments desirous of learning trades; and the pay for this should be a penny a day each, which the pioneer would receive in addition to his other pay. 'We do not,' say the committee, 'propose any alterations in reference to the present tailors' and shoemakers' shops; but we recommend that, as a second pair of boots are now allowed, the experiment should be tried of issuing the materials in kind for the second pair, and of having them made up in the shops; and also that, as far as possible, instruction should be given in the tailors' and shoemakers' shops, to enable such men or boys as desire it to mend their own clothes and boots.' Besides the regular pioneers, there are often military artisans and labourers employed in occasional duties in the army, at a pay in addition to, or greater than, that which they receive as mere soldiers; and the committee recommend that these should be placed in five classes, at extra pay varying from sixpence to fifteenpence a day, as a system for promoting those who most deserve favour.

There being thus artisan-soldiers in every regiment, the question arises—how to employ them? We are told by the committee that first-class soldiers only should be allowed to learn and practise trades; that this should be held subordinate to the due performance of their military duties; and that, when these duties have been fulfilled, the men might be usefully and profitably employed in repairing barrack-damages, in fair wear-and-tear repairs, in making and repairing barrack stores and furniture, and the like. The Royal Engineers might advantageously superintend and inspect all such works. After a time, they might possibly be employed in large public works, by an expansion of the system. The government must provide such shops as are absolutely necessary for the men to learn and work in; but it would be well to try the experiment, in the first instance, in such barracks or garrisons as happen to be already so provided. Where new shops or sheds are needed, it would be well for the men to build them themselves, with materials supplied for the purpose. Government should also in the first instance supply tools; some to be regarded as belonging to the barracks, some to the regiment. As the men would be paid either by day-wages or by contract, according to the nature of the work done, it is proposed that the government should be reimbursed the capital sunk in buildings and tools by a small deduction from the price paid for the work done by the men.

The government would thus be a customer, and the regiment a shopkeeper, or rather manufacturer, for useful work done; and the mode of developing this remarkable plan is thus sketched. The sergeant of pioneers for each regiment, as superintendent of workmen, would, in cases of contract, take orders for work, settle prices for the same, and purchase materials—under the approval of a regimental com-

mittee chosen to superintend the whole system. The signature of one member of this committee would be necessary to any order made by the sergeant in payment for materials. The sergeant would not have the handling of the money, either in receipts or payments; this would be included in the regular account-book duties of the paymaster of the regiment. The weekly time-sheet would be made out by the sergeant, and the paymaster could pay the men who have done the work. A non-commissioned officer, as clerk, might usefully fill a place between the pioneer-sergeant and the regimental paymaster. The committee, all throughout, build upon the expectation that by thus executing barrack-repairs, and other work of a similar kind, the country would really save money, besides giving a healthy moral encouragement to the sober and industrious soldiers in the several regiments. The trades taught and practised would be mainly such as would be available for service in the field, and for public works of a military character—such as those of the carpenter, joiner, turner, gunsmith, blacksmith, tinsmith, engine-fitter, bricklayer, mason, painter, glazier, plumber, wheelwright, thatcher, hurdle-maker, gardener, tailor, and shoemaker. When work has been done—virtually for the government, as it usually would be, although frequently under other apparent auspices—the proceeds, the money paid for the work, would be placed in a general fund. Out of this fund, at regular stated intervals, payments would be made to the sergeant and corporal of pioneers for their services, to the clerk, and to the instructors; then the government would be repaid a certain amount of interest on capital spent on buildings and tools; next would be paid the wages of the men employed on contract-work, and the bills for materials; and a small percentage might be useful for maintaining and repairing tools, and as a contribution to an Accident Fund.

These regimental shops would be open only to the soldier-artisans and their instructors; and no drinking would be permitted therein. The men would forfeit all the advantages of this system for misconduct; but, on the other hand, their earnings would not be interfered with for ordinary 'stoppages' or regimental payments, because the trade-accounts would be considered as quite separate from the soldiers' ordinary accounts.

We are not wholly without experience of the usefulness of employing soldiers, when practicable, in mechanical trades. Colonel Simmonds, commanding the Royal Engineers, informed the committee that the 45th Foot had executed a large amount of useful work at Aldershot, as assistants to the Sappers and Miners, and under the orders of the Royal Engineers. They erected temporary stables for a thousand horses, built horse-boxes, constructed a permanent sick-horse lazaretto, and set up sheds and temporary buildings of various kinds. Notwithstanding occasional drawbacks, Colonel Simmonds found that the sheds had cost the nation 20 per cent. less than if done by contract in the usual way. His letter was not received until after the committee had drawn up their Report and recommendations; and therefore it was all the more satisfactory to them to receive such testimony as the following: 'I am led to the conclusion that it would be decidedly attended with great advantage, economically, if the principle of employing soldiers upon great public works were extended; and I have not the least doubt it would tend to the efficiency of an army in the field, if in the ranks of every regiment there were a certain number of men who could be kept in practice at certain trades, and who would be always available on active service, or in any other emergency, as a supplemental force to assist the Royal Engineers in the construction and fitting of buildings as barracks, stores, magazines, &c., or in performing those numerous works which are constantly required of the constructive or works-department of an army in the field.'

Sooner or later, we heartily hope that some such system as this will be acted upon. It is sad to see our soldiers, who bear up so bravely under all kinds of troubles in active service, breaking down in barracks and camps into dissipated men, mainly because they have not enough to occupy themselves when daily routine duty is over. Even if the nation saved nothing by having constructive works and military stores executed in this way, instead of by the usual contractors, there would be saving in the health, mental and moral, technical and social, of the troops; and this is an important matter, for a soldier is a very costly commodity.

THE SARGASSO SEA.

WHEN Columbus, on his first voyage, had got two hundred leagues to the westward of the Canaries, his companions became greatly alarmed at the variation of the compass-needle, which no longer pointed straight to the North Star, but somewhat to the west of it. By means of an explanation which quieted the men, while it did not satisfy the leader who gave it, the voyagers were persuaded to continue their journey, till they became again frightened on observing that the wind blew constantly from the east. They believed that the Enemy of their souls had ensnared them into provoking the anger of the Almighty, by setting out on the voyage at all; and in the constancy of the wind which would prevent their getting back to Spain, they fancied they perceived the beginning of their destruction. Their murmurs, if not their fears, once more gave way before the confidence and resolution of Columbus, and he heard no more of their complaints till the ships had got four hundred leagues to the westward of the last land they had seen, Gomera, one of the Canaries. Here they fell in with vast quantities of weed, covering the sea to an immense extent, and in some places so thick as to retard the motion of the ships.

This was the occasion of new terror. The sailors imagined themselves arrived at the end of the navigable ocean, and said, if there was any land beyond, it was guarded by shoals, extending so far to the eastward as to prevent the approach of ships; that the weeds now about them belonged to these shoals, and concealed dangerous rocks, upon which they might expect at any moment to strike. When the encouragement given them by Columbus, to the effect that these weeds shewed they were nearing the land, turned out not to be warranted by the event, the admiral, to convince them they were not in danger, had the lead-line hove to two hundred fathoms, and at that depth found no bottom.

The breeze which sprang up and carried them still westward ho! probably did not come to a man more puzzled as to the meaning of this weedy sea which could not be sounded, than Columbus himself. Naturally enough, he had taken the weed to indicate the neighbourhood of land—perhaps of his promised land—and great must have been his confusion, not only at finding no further sign of what he sought, but also that no rock could be felt on which these belongings of the land could have grown. He sailed away, and realised his great idea of the existence of a New World; but amid the joy which his discovery brought him, and amid the sorrow in which ingratitude and indifference afterwards plunged him, it is probable that he never forgot or ceased to ponder

over the meaning of the vast weedy sea which so embarrassed him when he first beheld it.

He never ascertained the meaning of it, nor is it very long since that anything like a satisfactory explanation has been offered. From the hour in which he saw it to that in which we are writing, the ocean has continued to be covered within the same parallels with this weed. A tract estimated by one as equal to the size of France, by another to the extent of the valley of the Mississippi, is so loaded with weed as to impede materially the progress of ships sailing through it. It presents the appearance of a vast undulating prairie, clothed with a bright yellow vegetation. One might imagine, on coming on deck the first morning after arriving in these latitudes, that some Archimago or Zadkiel had exercised his art to confound the sailors, by removing their ship from its proper element, and setting it down in the midst of a field. As far as the eye can reach is the yellow weed to be seen, in masses more or less compact, as the winds are fresh or light; sometimes in lines of many miles in length, and only twenty feet in breadth, with an interval of clear water between them; sometimes in dense circular patches, like floating islands.

The weed is the *Fucus natans*, or *Sargassum bacciferum*, which, with plants of the *Rhodomelia*, *Coralinea*, and *Siphinea* families, abounds in the 'tropical Atlantic region.' It seems to be doubtful whether it grows on rocks at the bottom of the ocean, between the parallels of 40° north and south of the equator, and when detached, is drifted uniformly to particular spots which never vary, or whether it is propagated in the water, and drifted to these spots. Large fields of it are found near the Bahama islands. It has also been found in the antarctic seas, where, in conjunction with other gigantic sea-weeds, it has been said to interpose between ships and a lee-shore, and to have been the means of saving them from destruction. It teems with innumerable forms of life, and by accretion, gradually acquires a specific gravity, greater than that of the water in which it floats, and then sinks with its burden to form a unit in the vast aggregate of continents to be.

The Sargassum is found to be especially abundant in the Mexican Gulf, the Caribbean and adjacent seas. As soon as the nature and course of the Gulf Stream were well established, it became a habit to ascribe the existence of the Sargasso Sea to some peculiar influence of the Gulf Stream, which was supposed to bring the weed along with it, and to deposit it in the place where Columbus saw it.

While the most recent investigations have confirmed this loosely-stated hypothesis, they have also explained why the Gulf Stream should carry the weed to this particular spot, and to no other; and they have ascertained the precise office of the stream in forming the 'sea-weed meadows.'

The theory which used to obtain, and which attributed the Gulf Stream to the rush of the Mississippi waters into the Gulf of Mexico, could never do more than guess at its agency in connection with the Sargasso Sea, because, while it pretended to account for the existence of the stream itself, and allowed that it carried the weed along with it, it did not explain why the weed should become, comparatively speaking, stationary, after it had reached its destination, nor even why that particular destination should be assigned to it.

The theory of Dr Franklin, that the Gulf Stream was due to the constant action of the trade-winds blowing the waters of the Atlantic with accumulating force into the Gulf of Mexico, whence they found a vent by the Straits of Florida and the Bahama Banks, and streamed away by their initial velocity alone, till they became confounded in the other waters of the ocean, although more satisfactory than the former, did not, any more than it, account for the stationary character of the Sargasso Sea.

Although a heavy gale will sometimes disturb the weed so much as to send large patches of it floating away to the southward and west, it is certain that, as a rule, the plants remain gently swaying to and fro in their pleasant resting-place; and it is more than probable that the straying patches, after making a circuit of many thousand miles, come back again over the track they followed before, to the place whence they set out.

It was reserved for Lieutenant Maury, late of the United States navy—now Captain Maury in the service of the Confederate States—to put forth and explain the most generally accepted theory of the causes of the Gulf Stream, and to account, by way of corollary to his proof, for the Sargasso Sea.

While admitting that the trade winds may assist in giving the Gulf Stream its initial velocity, he denies that they alone give it, or that they are even the primary causes of it. In his elaborate and most interesting work on the *Physical Geography of the Sea*, he examines very carefully the position taken by Franklin, and gives cogent reasons why it should not be taken to be satisfactory. He then proceeds to advance the theory, which many years of reflection and many years of experience have induced him to set up as the true one, and incidentally he occupies himself with the Sargasso Sea.

The existence of an ocean-current setting north-west from the southward of the Cape of Good Hope, has long been known. This stream keeps on its course till it reaches the coast of Guinea, where it is deflected by the land, and turned off to the westward. The diurnal rotation of the earth, which gives their 'easting' to the trade-winds, also contributes to give the African current a westerly direction, the trade-winds assisting to increase its speed.

The well-established principle, that bodies in motion have an invariable tendency to move in a straight line from one point to another point nearest to it, unless interfered with by some sufficiently powerful force, furnishes another reason why the stream, once set going in a westerly course, should continue in it, as it actually does.

The fact, also, that in its passage from Africa to Central America the temperature of the stream in summer is raised from 74°, at a distance of 400 miles from the coast of Senegambia, to 82° in the Caribbean Sea, and to still higher in the Gulf of Mexico, will, with reference to the laws of heat and expansion, be found to have a very important bearing on the origin of the Gulf Stream.

Captain Maury shows the existence of great ocean-currents, equal in volume and intensity to the Gulf Stream itself, setting from the poles towards the equator, and pouring into the tropical seas a supply of cold water sufficient to repay them for the hot water they furnish, and by means of which they moderate and soften the rigours of the polar climate. He shows that the waters of the tropics are, as their deep blue colour indicates, highly charged with salts—the consequence of the excess of the evaporation over the precipitation of fresh water, within their latitudes. He shows that the extra-tropical seas receive more fresh water than they supply, and are consequently less dense than tropical waters; and on this difference in the respective specific gravities, he bases his general theory of currents.

As regards the Gulf Stream, he explains, in the

manner already mentioned, its source in the African current; its gradually-increasing temperature, till it reaches its maximum in the Mexican Gulf; its increased velocity, owing partly to the expansion of its waters; its tendency to escape from its basin by the nearest outlet—the Florida Pass; its rush of heated salt water to mingle with the cold, brackish water of the north; and its meeting, off the banks of Newfoundland, with a great cold flood, which has come from Baffin's Bay and the polar seas.

This cold stream under-runs, and also runs on either side of its warmer neighbour, going in the opposite direction, till it reaches the Caribbean Sea, whose waters are rendered by it, at a little depth, as cold as those around Spitzbergen.

Forced on one side by this mass of cold water, the Gulf Stream turns due east off the Grand Banks, and flows with increasing breadth and diminishing speed as far as the Western Islands. There its force on the southern side becomes expended, and is scarcely perceptible, except in certain seasons, to the southward of Corvo and Flores. On its northern course, however, it continues at the rate of ten to twelve miles a day, washes the British Islands, softening their climate, and passes on to the coasts of Sweden and Norway, until it finally loses itself in the North Sea.

For the same reason that objects drifting in rivers or ocean-streams which are running in the direction of the earth's diurnal motion, are sloughed off to the west, and cast on western shores, objects drifting in streams running in the opposite direction have a tendency to be sloughed off to the east; and therefore it is that the Sargassum, which abounds so plentifully in the tropical seas, and especially in the Mexican Gulf and Caribbean Sea, being hurried along by the impetuous stream in its north-easterly journey, is sloughed off to the eastward by it, and is shot out in its accumulated bulk at that point where the stream loses its force, to the westward of the Azores.

It is prevented from landing on the African coast by a current which sets down from the North Sea, on the east side of the Gulf Stream, running up, and which washes the coast of Denmark and Holland, passes through the English Channel, and runs uniformly south, past the Strait of Gibraltar, till it meets the South-sea stream, at the point where that is turned to the westward, and thence goes off with it to the Caribbean Sea.

This southern stream united with the northern stream, and being the first cause of the Gulf Stream itself, also prevents the Sargasso weed from going south. The weed-sea is thus fenced in on the north by the Gulf Stream, on the east by the North Sea current, on the south by the equatorial African current; and although, on the west side, it may be said not to be strictly bounded at all until it reaches the Caribbean Sea, it may be considered as contained within the 37° and 30° north latitude, and 38° and 42° west longitude.

Storms affect it sometimes, as already mentioned, even to carrying large patches of weed to the southward, where they are again brought within the influence of the westerly current, and sent round the circuit, again to be sloughed off by the Gulf Stream into their old berth.

Such is the explanation given of this curiosity of physical geography.

Whether, in the course of ages, the deposited weed, with its load of animated beings, will in this place build up some new continent, is a question which admits 'a wide solution.' While the poet may be allowed to foretell the realisation of such an idea, the man of science can do no more than admit the possibility of it; and although he may stretch his mind to the calculation of the centuries which must elapse between now and then, and fatigue himself in contemplating the total, he cannot reject as absurd the notion

that even so difficult a thing is beyond the power of Him who 'comprehendeth the dust of the earth in a measure,' and 'taketh up the isles as a very little thing.'

HEDGE-POPPING.

I UNDERSTAND, by the above heading, the small sport of those who are fond of shooting, but own no preserves, and take out no licence. They are by no means poachers, but follow up a black-bird with an interest unmarred by envy of the great guns; not but that they sometimes—in the sudden heat of discovery—kill a partridge, pheasant, or a hare, but as a rule, they do not affect such game, but aim at small results, which they pursue with spirits and success worthy of a tiger-hunt. All birds are fair game to them, with the exception of robins, which are sacred, and rooks, which enjoy a special privilege of destruction, and may not be killed except young. I am not sure whether a true hedge-popper would kill a wren; I hardly think he would; possibly, her supposed relationship to cock-robin is a protection to this little bird; nor would he harm an owl or a swallow. But, with these exceptions, the hedge-popper lets fly at anything within his reach. And why should he be refused a chronicle? Battues are reported in the *Times*; the accounts of the moors are published with a business-like, money-article sort of air, some weeks before the 12th of August; the judges who go our circuits, and the magistrates who remain at home, are continually engaged in adjudicating between poachers and sportsmen; half the conversation at the squire's table is about game; the Houses of Parliament are agitated by proposals for the conviction of men who may be suspected of having pheasants in their pockets; the governors and the governed are equally bitter and complaining about preserves. Why, then, should the humble hedge-popper, who is happier in his 'sport' than the largest game-owner in the country, be unnoticed? He is content to enjoy himself without protection; he needs no keepers to sit up at night and have their skulls cracked; he asks for no army of beaters and markers; he needs no expensive outfit; he does not buy dogs at fifty guineas the brace; he is not plagued with a kennel, abused by tenants, nor covered with obloquy by the Radical journals. And yet he can perfect himself in all that distinguishes a true sportsman. He can shoot well—at least, he ought to do so, for he is sharply tested by the specialties and variety of his sport; he must learn to be patient; he sees and should remember the habits of birds; he finds abundant exercise in the pursuit of his amusement, and wastes no money on its artificial support.

I believe that most famous 'shots' have been hedge-poppers in their time, and, moreover, that some of their pleasantest reminiscences are of early days, when society did not notice their pretensions. Let me try and touch, if it may be, the memories of some bygone days in the respectable bosoms of elderly gentlemen who read these words. I am gray now, and have grave work enough to do, but when I see a boy creeping along under a hedge, with his gun and ears full-cock, I think of the time when my waist was less than it is, and I tore holes in my jacket, stalking the smallest game. Let me look kindly back, and where I see a scene or phase of hedge-popping, put it down here in harmless words.

The young hedge-popper begins almost invariably in the snow or among the gooseberry-bushes. A small boy frequents these bushes when the fruit is ripe, creeping about and looking beneath the low branches, with, of course, far more ease than a man; and there he sees prodigious opportunities of sport. There are great black-birds hopping about and pecking away, bill-deep, in the central stores of fruit;

missel thrushes, shewing to the boy-eye as big as partridges; and young robins, which have all the impudence of their race, but are not protected by the badge of red upon their breasts, mean-looking, thievish, voiceless birds, which the hedge-popper does not consider to be robins as yet. On these the young sportsman generally begins, being encouraged by the gardener. His first weapon is a bow and arrow, probably a cross-bow made with the aid of the village carpenter. The missile is a heavy bolt, which will fly some thirty yards, and does duty over and over again till it is lost. With this the boy squats or peeps among the fruit-bushes till he gets a shot at very short range, say three yards. Mostly, the bolt flies wide, causing by its own flight and recovery far more destruction of fruit than any one small bird; occasionally, however, the game is struck and slain, and great is the triumph. Happily, there is less pain and fright suffered by the victim in this than in any other sport. The bird generally hops off, and continues its meal at the next bush, but when struck, receives a fatal blow: once hit with a missile bigger and heavier than itself, it comes to grief suddenly.

But the hedge-popper soon gets beyond the bow and arrow. I remember, when a little lad, thinking another supremely blessed in the possession of a pistol-barrel mounted on a little gunstock, and which once killed a yellow-hammer at the almost incredible distance of twenty-two paces. I had a pistol myself—to this day, I wonder why it was not taken from me—and used to make some very fair practice at eight or ten yards.

But at last we got a gun, and rose towards the higher walks of hedge-popping. Not that the gun was any great matter to shoot, but still it was a gun. You could put it to your shoulder, and take aim. It kicked, which was a great point, and made a prodigious noise. We bought paper screws of shot at the little grocer's in the village, or we cut up sheet-lead into mince-meat with our pocket-knives, and loaded the weapon with that. Of course, we used the bowl of a tobacco-pipe to measure the charge, and employed paper for wadding.

With this implement, we aimed high and low, shot black-birds thirty yards off, cut up the shrubs, broke cucumber-lights and hidden garden-glasses. There were, however, two places which almost invariably afforded some sport—one was a tree at the corner of a barn, where the sparrows always retired when disturbed in the farm-yard, from whence they made their raids. Every one living in the country knows some such tree, generally a thorn, thick with tangled twigs, and altogether impervious to the eye when covered with leaves. Well, during the winter, there were always some sparrows or finches to be found there, despite of our constant popping. You might stand beneath it the whole afternoon, and find a succession of shots. But the chief tree was a high elm frequented by jackdaws. These birds were pronounced mischievous; and though charged to hold rooks sacred, we were permitted to shoot jackdaws, if we could: not such an easy matter for little boys, who had to get within thirty yards of these birds, and then catch them sitting. They combine, like many busy chattering people, much cunning with their impudence, and scent a gun as quickly as a thief does a policeman. There was a long wall, however, to our garden, near the end of which stood the jackdaws' tree. When we saw two or three of them fairly perched, we used—hiding the gun—to slip under cover of the wall at some distance off, in an unembarrassed sort of way, as if we were going to gather fruit; then, stooping down, we would creep quickly up behind it till we reached a large lilac opposite the elm-tree. Peeping out of the thick of this over the wall, we too often found that we were detected, and that the birds had flown. If not, if the familiar jackle, jackle, jackle was still heard, then resting the piece in

the ivy on the wall-top, and taking a long poking aim, one of the rogues was pretty sure to bite the dust. I often think of that masked battery now, when I smell lilac. Of course, those were days in which we could not shoot flying, and a jackdaw was a golden eagle.

We had a man-servant then, named Sam. I remember once his making us boys very jealous by killing two daws at one shot out of this same bush. They had grown very shy, but he got them early one summer morning, and brought them to our room before we were up. We thought it a prodigious feat. Sam was a Weller in his way; and though he occasionally anticipated us in some opportune shot, used to prefer helping us in hedge-popping to doing his work. But he always had an excuse for any failure. I remember his proposing to catch a rabbit with a fat house-dog we had; and on returning unsuccessful, 'The rabbit,' he said, 'ran so fast, that Mungo had hard work to keep behind him.' Poor Sam! I forget what became of him; he got into great scrapes with the authorities for incurable laziness and impertinence; but he was an enthusiastic assistant in hedge-popping. He never did anything without some expression of comic interest in the work. I remember once looking into the kitchen, and seeing Sam crouched up by the fire, his hands on his knees, mouth open, eyes half shut, and face as long as a fiddle-case. The gardener coming in at that instant, cried out: 'Hollo, Sam, what are you after?' 'Huah!' replied Sam cautiously; 'I'm catching a cold;' as if it were an animal behind the grate, which he expected to bolt, like a rabbit.

The shrubs at the end of the wall where the battery was masked for the jackdaws, formed an excellent practice-ground for snap-shooting in later boy-years. There were always some black-birds or thrushes in the shrubbery; but when disturbed, they never broke cover till they got to the wall, and then they popped over with a flip, and I can tell you it is no such easy matter to catch a bird thus. Some of your pheasant-butchers would be hard put to it to knock over a black-bird in such a glimpse, but we got to be rather dabs at this quick shooting; and on the first occasion of my ever shooting at a woodcock, at my first battue, I knocked one down which was twisting about among the trees, in the presence of some eight or nine old sportsmen, with very great applause.

Wood-pigeons are among the hedge-popper's head game. The best way to get them is to wait by the plantations to which they resort, and stand still till they come. But by no means shoot at one as it approaches you—the feathers of these birds are so thick upon the breast that they will often turn off the shot—wait till they have passed, and then they are vulnerable enough.

The same rule applies to wild duck, gulls, &c. Though wild-duck shooting is a high and separate art, yet the popper is in his glory on the beach, and about the saltings on the flat coast. Nowhere does he learn better to calculate distances, nowhere has he greater variety of practice, from the curlew going at full speed down a creek, to an oxbird running and then rising up just within range, and needing to be knocked down in an instant, if touched at all. There is something, though, about shooting gulls against the grain. They are the marked companions of our sacred friends the rooks. With them they follow the plough, and dot the dark mould with spots of white, shewing bigger than they really are by their contrast with their black companions.

But the worst feat of all is to shoot an owl; there is something ominous of evil in it. Did you ever see a wounded owl? Its look of melancholy reproach is most affecting. One does not wonder at the boy in the story, whose companion had winged an owl in a churchyard, and who ran to pick it up. 'O Billy,' he cried out when he reached it, 'what have you

done? You've been and shot a cherubim;' a great compliment to the sculptor of the tombstones he had studied.

There is one rule, too, the hedge-popper will keep sacredly—he will never shoot in the breeding-times. Autumn and winter are his seasons, especially the latter, when the black-birds are dispersed in the hedges, and the larks are not packed by too cold weather. Then even an old sportsman may find abundant occasions for exercise and skill, without breeding any of the bad blood which too often accompanies the preservation of game, and without slaughtering the numerous little birds which preserve our fields and gardens from the grub.

THE MONTH:

SCIENCE AND ARTS.

ONE of Davy's triumphs was the discovery of magnesium, the metallic base of magnesia; but the difficulty and cost of its production were so great that it has always been very costly; from five to seven guineas an ounce. But a chemist at Loughborough has recently patented a process by which he obtains magnesium in large quantities, and at a comparatively low price, at present eighteen shillings an ounce, with prospect of a further reduction. Among the results that may be looked for from this discovery, we shall probably have applications of magnesium, which is a light and brilliant metal, in useful and ornamental art, as we already have of aluminium, and (in expectation) of thallium. The same chemist has, we hear, also discovered a ready and cheap method for producing sodium, which metal is largely required in the manufacture of magnesium and aluminium; thus one product assists materially in the obtaining of the others, especially as there is a probability of the manufacture being pursued on a large scale. While we are writing, we hear that yet another metal has been discovered by the chemists of the laboratory at Freiberg in Saxony. They were operating with certain specimens of metal composed for the most part of sulphate and arseniate of iron, blende, galena, and earthy matter containing copper. These specimens, examined by the spectroscope, gave a brilliant indigo-blue line by which a new substance was well identified. The name proposed, therefore, for the new metal is *indium*.

Turning to a common metal, lead, we are very glad to notice that the danger of using lead-pipes for water-supply may now be avoided. Should it come into general use, we shall hear no more of families being poisoned, or their health seriously injured, by drinking water brought into their houses by lead pipes. The danger is greatest with new pipes, old pipes being comparatively innocuous, because of their having become coated inside with a deposit which, harmless in itself, prevents contact of the water with the lead. The remedy is the discovery of Dr Schwarz of Breslau. He passes a stream of a hot solution of potassium through the pipes, and thereby alters the metallic condition of the interior surface, and converts it into a sulphide in a few minutes, and at a very trifling cost. This sulphide is an innocuous product, and consequently protects the water from the deleterious action of the lead. Such being the case, we trust that manufacturers will in future produce lead pipes that shall be harmless.

We have from time to time mentioned the name of Professor Bonelli in connection with electro-telegraphy, and we have now to report that his latest invention of apparatus for printing messages has proved successful. It has been tried between Liverpool and Manchester, demonstrating its powers by printing words at the rate of four hundred a minute, and in the ordinary legible characters. The apparatus is described as consisting of rows of type, which pass

under a 'comb' while the instrument is in operation, and from the comb the result of contact of the type is communicated to the five wires, and by them transmitted as a message to its destination, and delivered in a readable form. Marvellous as has been the progress of electro-telegraphy, we may venture to believe that results yet more striking will be achieved before the world is many years older. In 1862, the number of messages of all kinds—government, commercial, and official—despatched in France amounted to more than 2,100,000, the money-value of which was about 7,500,000 francs. 'Thus we see,' says a Parisian contemporary, 'a double benefit for people and for government. And telegraphy, far from causing a diminution in the number of letters, does but increase them more and more.' In the first three months of the present year, 6160 messages were sent along the line from Malta to Alexandria.

People have not yet done talking about Sir William Armstrong's address to the British Association, for it elucidates much, and suggests more. The artillery question is one which, notwithstanding the sharp practice in America, and the repeated experiments made at public and private cost in our own country, cannot be settled in a hurry. As yet, we know comparatively little of what can be done with the largest kind of guns, nor the limit to which size may be carried. During the Crimean war, as we mentioned at the time, a mortar was tried at Woolwich which threw a shell three feet in diameter. If anything like that size should be found possible in practice, the capabilities of offence and defence will be astonishingly increased. The works at Elswick, as we may expect, will help very materially towards a settlement of this interesting and important question.—Another important question discussed by Sir William is the probable duration of our supplies of coal, and his remark that England will burn her last ton of coal about a hundred years hence, has greatly surprised many who had accepted the theory that our coal-fields would last for a thousand years to come. Some very ingenious persons view the matter calmly, for they are persuaded that, under the pressure of necessity, some other mode of producing heat will be discovered. Another party are of opinion that Englishmen have energy and enterprise sufficient to enable them to strike out new branches of profitable industry even when our deposits of coal and iron shall be exhausted. Chemistry is a fecund science, always the richer in prospect the more it achieves.

Messrs Victor and Polglase have invented a safety-fuse for the use of miners, which may be worth the attention of those who seek to prevent accidents in mines. They fill a tube of lead or some other sufficiently ductile metal with gunpowder, and close the two ends by compression. The tube is then drawn through a drawplate, after the manner of wire-drawing, until it is four times the original length. By this process, the powder is so closely compressed, that it will only burn slowly without explosion. The tube may, however, be made of any required diameter, as, after the drawing, it is perfectly flexible. Fuses prepared in this way do not suffer from damp, and may be kept in parcels a long time without danger. The only precaution required is to see that the ends are closed by a blow from a wooden mallet. But their chief advantage is that they involve no risk of sudden explosions, because, when they fail of their effect, the cessation of the combustion becomes evident.

The great railway terminus at Charing Cross is so near completion, at least in the appliances for locomotion, that it will soon be opened for public traffic; and travellers coming from the continent may take their seat in the train at Dover, and alight on the north side of the Thames in one of the central districts of London. Passengers from the west either of England or London will henceforth be saved

from the slow, wearisome struggle through the crowded streets of the City to the London Bridge station. The new terminus presents a handsome façade to the Strand, and comprises a ground-floor of offices, with a hotel over. The bridge by which the railway crosses the Thames is sufficiently remarkable for a brief notice. It occupies—as most readers will remember—the site of the late Hungerford Suspension Bridge, at a place where the river is 1350 feet wide, and is built of nine spans (not arches), of which six measure 154 each, and three 100 feet each. The principal supports are vertical iron cylinders, which being built up inside with concrete and brickwork, form solid columns of the strongest construction. At the base, they are 14 feet diameter, and are sunk through the clay and down into the gravel to a depth of from 52 to 72 feet below high-water mark; and as they were weighted when first set up with loads of 450 and 700 tons, it is believed they will never manifest any disposition to sink lower. Four lines of rail cross from the Surrey side to near the Middlesex side, where they diverge, fan-wise, into seven lines, which enter the terminus. The floor of the bridge is of 4-inch and 6-inch plank, and has on each side a properly fenced way for foot-passengers. The first cylinder was pitched on the 6th June 1860, which gives three-and-a-half years as the time of building. Including steel pins used in fastening, the bridge contains nearly 7000 tons of iron; and the total cost is reckoned at £1,180,000.

IN THE FIRE-LIGHT.

I have watched her all the evening,
Sitting there in the red fire-light;
How I wish I could draw her picture,
Looking just as she does to-night!

Sitting motionless, with her head bent down
Over the book on her knee;
Though she is not reading, but dreaming,
Lost in happy reverie.

Like playful sprites, delighted
To deck a thing so fair,
The flickering flames illuminate
New beauties everywhere;

Quivering restlessly up and down,
From her cheek to her forehead fair;
Sometimes leaping up and lighting
The waves of her shadowy hair.

I wonder what made her smile just now—
What can she be thinking about,
With those dimples in her sunny cheeks?
Hers are pleasant thoughts, no doubt.

She will smile every bit as brightly
When I'm far beyond the sea.
Pretty dreamer! how little she guesses
That she's all the world to me!

How often I will think of her,
Far away from here; and she—
Though we part for years to-morrow—
She has quite forgotten me.

All communications to be addressed to 'The Editors of *Chambers's Journal*, 47 Paternoster Row, London,' accompanied by postage-stamps, as the return of rejected contributions cannot otherwise be guaranteed. Communications should also, in every case, be accompanied by the writer's *Christian and surname in full*.

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